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Floating on a Legislative Framework in Flood Management in Malaysia: Lessons from the United Kingdom

Zaiton Hamin^{a,c}, Mohd Bahrin Othman^{b,c}, Zaharah Elias^{c*}

^a*Accounting Research Institute, HICoE*

^b*Students' Affairs and Alumni Division*

^c*Faculty of Law, Universiti Teknologi MARA, 40450 Shah Alam, Malaysia*

Abstract

This paper attempts to examine the governing modalities co-ordinating and integrating the policies and programmes to reduce flood-related disaster risks. The World Conference adopted the Hyogo Framework for Action 2005 – 2015 which stressed on viable institutional disaster risk reduction bases. United Kingdom responded with a central legal framework in flood management, whilst Malaysia relies on the National Security Directive No.20. This research will examine the UK legal framework for valuable lessons that Malaysia could learn from. It adopts a library-based approach, and the expected outcome of this research would be to propose a single legislation for Malaysia in flood management.

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1. Introduction

Flood is amongst the most common of natural disasters, gravely affecting the lives of humans and the environment from the beginning of time. Although water is a basic necessity, when in abundance, rising above its normal level, covering the land surrounding it, it could cause distress to any community. It causes a society, no matter how developed, to become extremely vulnerable. When Hurricane Katrina struck Louisiana in 2005 causing 80 per cent of New Orleans to be flooded, the damage was estimated at

* Corresponding author. Tel.: +0-000-000-0000 ; fax: +0-000-000-0000 .
E-mail address: zzarah@salam.uitm.edu.my.

USD200 billion. When super storm Sandy made landfall on 29th October 2012, wreaking havoc and temporarily crippling the North-Eastern part of United States of America, the heart of one of the most highly developed nation suffered phenomenal losses to lives and property, and in insurance, reportedly estimated at USD20 billion. Lesser nations have experienced disasters of lesser magnitude, but the effect is not too dissimilar. Like any affected community, the floods caused a city like New York to lose its balance and fortitude. The normal order ran into chaos as there was city-wide paralysis with unheard of flooded tunnels and subways, power outages and closure of airports. Thus the community, despite its advanced state of development suffered the indignity of needing aid, albeit briefly, to be able to return to some semblance of normality.

Acknowledging the challenges that disasters posed, the World Conference on Disaster Reduction in Kobe, Hyogo on January 2005 adopted the Hyogo Framework for Action 2005-2015 which sets out the International Strategy for Disaster Reduction Framework. The Conference recognised the indisputable fact that the changing conditions in demography, technology and socio-economy, as well as the processes of modernization, have made the world, especially the poor, more vulnerable and susceptible to disasters mainly of Hydro meteorological origin such as floods. Hence, amongst the main principle of the Hyogo Framework is to ensure that member countries establish strong institutional base, which would prioritise disaster risk reduction at all levels of society. Efforts to reduce such disaster risks have to be realised by incorporating it systematically into sustainable development plans, programs and policies. Among the outcomes learnt, form a review of the Yokohama Strategy for a Safer World that had been adopted earlier in 1994 was that, a country that have integrated disaster risk reduction in its legislative and institutional frameworks have a greater ability to cope with the risk of disasters. The most common disaster to befall Malaysia is flooding. The problems brought on by the floods, warrant proper coordination of community development plans and policies, with an integrated approach to flood damage mitigation and coordination of activities and programmes to protect the community concerned.

This paper examines the existing flood-risk based laws in Malaysia in managing the consequences of flooding effectively, in line with the Hyogo Framework. Also, this paper contends that rather than the variety of flood risk-based legislation, a single legal framework should be the way forward for Malaysia, if the British experience is anything to go by. Such legislation could unify the different mechanisms in order to plan and create an environment with a better understanding of managing flood disasters between the various bodies involved in implementing flood risk management measures, as well as provide protection for the community and reduce the impact of flooding. It will provide policy makers with integrated decision-support tools and in the long term promote commitment on measures of flood prevention, preparedness and mitigation.

Adopting a comparative analysis and content analysis approach, this conceptual paper examines the primary sources such the Hyogo Frame.

2. Floods-based disasters

Floods have been on the increase in recent years and Men have been blamed for it. Although floods do occur naturally, however, some that have taken a heavy toll on lives and property are man-made failures such as bursting of dams, urban flooding and debris flow in densely populated areas. Giddens blames modernization for the “manufactured risks” which have taken over from natural risks, causing the merging of natural and technological boundaries. Man’s attempt at undertaking remedial measures against flood seems counter-productive, especially when they have chosen to live on the flood plains they have, in fact, chosen to do battle with nature. When Men try to control the rivers’ natural course by keeping it within the boundaries that they have artificially constructed, the rivers that are swollen with sediment collected along their courses would eventually break their banks and destroy any settlements in their path.

According to Kundzewicz and Takeuchi, increased flood-related damage is attributed to worldwide population concentration in urban areas, spilling over onto areas that are flood prone. It is an irony that some disasters have occurred due to the belief on the effectiveness of the protection supposed to be afforded by the safety measures taken to prevent flooding. Safety measures such as bunds and dykes created for protecting against normal flood are no match for disproportionate volumes of water, accumulated through Man's interferences with nature such as by 'improving' river flow by straightening it and deforestation. Men do learn and adapt to the disasters they have experienced, and take measures to mitigate losses in the future, but, after a while they forget, and then suffer the woes of another disaster, which may be even worse.

The destruction brought about by floods has been a global concern. The areas along river banks are areas along rivers banks, coastal flats and low lying plains are normally affected by floods. However, in recent time economic and social development shifting residential areas to hill slopes have seen landslides, mud and debris flow that worsen the impact of the floods. In Asia, floods in Bangladesh, India, Indonesia and the Philippines claiming lives and destroying the landscape are not uncommon. Amongst the worst hit country in the twentieth century was China, when reportedly 400,000 lives were lost in the Yangtze Floods in July and August 1931. Later in the 1990s, China again recorded the highest losses due to floods amounting to USD26.5 and 30 billion in 1996 and 1998. Japan was also not spared from flood related losses after the Second World War, but with flood control measures and the community being better informed and better prepared, fatalities lessened. Strides in development made by countries like Japan, however, does not totally protect it from such natural disasters. In 2011, Thailand had its worst flood that caused it to suffer total damage and financial loss estimated at USD46.5 billion, whilst rehabilitation and reconstruction were estimated to take two years at the cost of USD50 billion. Development and climatic changes contributed to most of these destructive floods.

3. Floods risk management

After most floods have subsided, it will have an impact on humans and the environment. The trail left behind normally shows the bigger the floods, the more destructive the outcome, both in loss of lives and property. Flood risk management is to minimise the risk of flood disasters that involve programs which is not only about rescue, but also about preparations for the floods and planning on how to prevent them from happening so that when it does occur, the effect could be minimized on people and the infrastructure of the affected community. According to McLuckie, management of flood risk usually involves reducing the impacts by reducing the consequences of flooding. Kundzewicz contends that since floods are a natural phenomenon, it cannot be eradicated. Man has to learn to live with floods. In areas, where floods occur regularly, the community can, to a certain extent, be prepared for it, although in some areas, the disasters could be totally unexpected. Adapting to what is already naturally in existence is a good risk management as in the case of the people in old Nagoya, Japan, who not only built dikes around their villages in the event of a flood that is certain, but also prepares themselves for the floods by storing boats under their roofs.

Usually the most vulnerable are those who are totally unprepared. The impact brought about by the unscheduled floods may be reduced, and the community would recover with effective and proper mitigation measures. Mitigation in relation to such natural disasters requires pre-disaster planning, and proper policy-making to protect the community concerned. The plans and policies have to take into account necessary coordination between the government agencies, the non-governmental organizations involved, and the community at large. When flooding suddenly happens, immediate action must swiftly take place. In poor under-developed and developing communities, where there is remarkably little done to alleviate flood dangers, the consequence of flooding seems rather tragic. Having extremely little worldly

goods, the only loss would be the lives of the people. As for developed communities that may have taken all necessary precautions to stave off floods, their assets may be affected. However, no matter how prepared a community, it may still need all the necessary assistance when struck by unscheduled crisis. The recovery, however, is much faster due to better planning, better maintenance practices and better training of the flood relief teams. Kundzewicz pointed out how Japan, a developed country with concerted effort in reducing flood risk through good policies, sensitive planning, well-thought out construction and preparing their community for floods have benefitted from its mitigation planning and policies. The world had witnessed that although shaken by an earthquake on March 11, 2011, followed by a tsunami that had caused extensive damage with several nuclear reactor meltdowns, Japan, already prepared with sound disaster management policies, was able to reduce physical damage and deaths, and made a speedy recovery. A common action plan to mitigate disasters is the comprehensive approach, incorporating Prevention, Preparation, Response and Recovery. This involves measures of prevention and preparation for the floods with forecasts that would provide sufficient warning. Then the relevant authorities have to respond by coordinating matters relating to evacuating victims and possible victims as well as search and rescue and providing relief. Finally in flood risk management, the recovery process after the disaster, to reconstruct and rehabilitate is just as indispensable.

4. The Malaysian experience

Malaysia as a party to the World Conference has implemented the Hyogo Framework for Action, but through the National Security Council Directive No.20. This Directive came into existence when there was a need for a policy and a mechanism to integrate, coordinate disasters on land in a systematic manner in Malaysia. The Prime Minister will issue the National Security Council Directive No. 20 from Prime Minister's with the support of much legislation to coordinate various agencies at Federal, State and District levels. The Directive defined disaster as "an incident that occurs unexpectedly, complex in nature, resulting in the loss of lives and damage to properties and the environment, as well as interfering in the daily activities of the local community. The incident requires the management which involves resources, equipment, frequency and extensive manpower from various government agencies as well as effective coordination and the possibility of taking complex actions over a long time". The Directive would not be fully effective as a tool in fulfilling the Hyogo Framework policies, without invoking different legislation that has different roles in disaster management. Among the disasters that are within the ambit of the Directive are those related to collapse of high-rise buildings; the emission of poisonous gas in public places, and transferring of hazardous materials; the bursting of hydro dams or reservoirs. Other disasters include trains collisions or derailments; air accidents that occur in populated areas; haze, which causes environmental disaster; industrial disasters, fire, explosion and emission of hazardous materials, channelling and transferring of hazardous materials nuclear and radiological mishaps. Finally, fire outbreak in large areas such as forest fires and open burning and natural disasters due to floods, storm, draughts, beach erosion, landslides or disaster resulting from storm area also included.

When floods occur, the relief and recovery process is hugely dependent on the National Security Council Directive No. 20 which can only be kicked into action by the National Security Council under the Prime Minister's Department. A variety of statutes, amongst others, the Land Conservation Act 1960, Town and Country Planning Act 1976, Environment Quality Act 1974, Local Government Act 1976, Irrigation Areas Act 1953, Drainage Works Act 1954, National Forestry Act 1984 and Uniform Building By-Laws 1984 will have to be invoked. Evidently, without a single legal framework that is concerned with flood risk management, Malaysia will theoretically face problems where solutions are designed to adapt to the needs of local communities. To facilitate the management of floods, policies and priorities have to be consistent when flooding occurs. In planning for measures to prevent and prepare for floods,

creating programmes and policies on land use and restrictions, regulations on planning and building structures taking into account the principles of sustainable development with flood-risk basis, each of these legal instruments that complement the Directive will have to be reviewed, analysed and justified on its own merit.

From the variety of laws referred to, there are different components from each Act that need to be extracted to fulfil certain actions or duties. Clear cut responsibilities between the parties involved in flood risk management may be difficult to perceive as there may be overlapping of provisions, nevertheless, because they are separate legislation, they are not capable of definitively including or excluding any rights or duties. There may be provisions from different Acts that complement another, but when a crisis happens, there just is not enough time to seek it out.

The World Conference had maintained in order to reduce disaster risks there must be an effort to have systematic integrated policies, plans and programs for sustainable development and reducing economic and social losses. Legislation is a critical component to reduce flood risk. It is without doubt that countries that were successful in managing risks and apply disaster risk reduction measures are those countries that have made the effort, amongst others, to develop a legislative framework with disaster risk management as a national priority.

5. Lessons from United Kingdom

In 2007, England suffered one of the worst disasters since the Second World War. The torrential downpours caused massive floods that caused astronomic economic losses estimated at £3.2 billion. The impact of extreme weather and climatic changes and the fact that in the future, such catastrophes may again happen has catapulted the government into action. Sir Michael Pitt, a highly respected member of the English society was appointed to head a Review Committee, which aimed at investigating the causes of the 2007 Floods and what lessons could be learnt from it. In 2008 the Committee published its findings and from the recommendations, the Flood and Water Management Act 2010 came into existence. This Act is to provide a better and more comprehensive management of flood risks that would benefit the people, their property and the community's economy. The Act also ensured policies relating to water services to the consumer would not be to their disadvantage. The Act also clarified the roles and responsibilities of local authorities, government agencies and all other parties involved in managing flood and coastal risks

With the establishment of the Flood and Water Management Act 2010, United Kingdom had complied with the European Floods Directive 2007 that had required member countries to have policies, plans and programs that manage and coordinate flood risks, emphasizing on risk assessment, management and communication along the lines of the Hyogo Framework of Action. Prior to the 2010 Act, flood risk management in England was similar to the situation in Malaysia, whereby flood-related laws were found in some legislation such as the Water Act 2003, the Environment Act 1995, the Water Resources Act 1991 and the Drainage Act 1991, the Town and Country Planning Act 1990, the Building Act 1984, the Highways Act 1980 and the Civil Contingencies Act 2004. Some of these Acts underwent amendments in accordance with organizational changes, but the Review Committee reported that there was confusion with related provisions found in different Acts. There were some constant features in the different legislation, but the Review Committee stressed on the need for more clarity in the flood-related provisions. It pointed out that, as an example, there was no duty imposed on authorities such as the Environment Agency, the local authorities and the Internal Drainage Board as the relevant law merely made these powers permissible. Powers were given to various parties to deal with what is broadly termed as 'flood defence'. In such defence matters, the Environment Agency had a general supervisory duty. The Committee agreed that all these related Acts had prominent roles in the flood risk management

framework, but needed refinement in tune with the policy. The stakeholders agreed that the laws must distinctly state the responsibility of the different operating authorities, and the different sources of flooding. The Committee highlighted various shortcomings in the legal provisions that paved the way for the 2010 Act. The Committee was of the view that a single unifying legislation would be able to fulfil their recommendations and address the sources of flooding, defining the duties of each operating authority, and facilitating flood risk management. Although the Flood and Water Management Act 2010 received Royal Assent in April 2010, its implementation is in stages through a series of ministerial orders. The department of Environment, Food and Rural Affairs, is committed to implementing all the provisions of the Act by December 2014.

6. The future ahead for flood management law

Malaysia is amongst the luckiest nations in South East Asia as it has not been put through some of the most destructive disasters that have visited her neighbours. Thailand has had its share of floods, whilst Philippines, mudslides and landslides, and Indonesia, earthquakes and floods. Despite that, it cannot afford to be complacent as every now and then there are calamities taking place, especially in the form of floods, more predictably during the monsoon seasons. As established earlier on, the legal structure that is the basis for dealing with floods in Malaysia, as with other disasters, is the National Security Council Directive No. 20, which is activated upon a disaster being declared. However, it has to be appreciated that flood risk management is not merely about dealing with the floods when the water rises. Taking into consideration the full cycle of managing floods, the National Security Council Directive No. 20 would not be in a position to address all issues, incorporating Prevention, Preparation, Response and Recovery in flood risk management. Parts of the provisions of Land Conservation Act 1960, Town and Country Planning Act 1976, Environment Quality Act 1974, Local Government Act 1976, Irrigation Areas Act 1953, Drainage Works Act 1954, National Forestry Act 1984 and Uniform Building By-Laws 1984 are essential to regulate measures for prevention and preparation for the floods. However, each of these Acts does not specifically address the issue distinctly.

In dealing with the response to floods by coordinating matters relating to evacuating victims and possible victims, as well as search and rescue, and providing relief, the Directive operates from the Prime Minister's Department, establishing Disaster Management Relief Committees at Federal, State and District levels. Such Committees act as a mechanism with no power to vest clearly defined authority in the members who are bound to be involved by virtue of the office they hold. The government officials involved are merely exercising their normal official duty as members of the Civil Service, the Army or the Police, and nothing more. If they should they act in response to an emergency in a manner beyond their authorized powers, who should be answerable for any mishaps? This is where a provision clearly defining the power to be vested in any person of authority is needed.

Finally in flood risk management, the recovery process after the disaster, to reconstruct and rehabilitate is just as valuable. Here, legislation relating to welfare, housing, education and provision of other public amenities need to be available complementing the recovery and rehabilitation process. The Directive again will have almost no role to play. Accordingly, a more flexible legal structure is needed in a modern community to keep up with the socio-economic and technological advancements. As policy develops, climate changes and new risks emerge; there is a need for a single legislation to keep abreast with flood risk management policies.

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